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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,882

12/29/2005

Thomas Jan De Hoog

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

10/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,882

Applicant(s)

DE HOOG ET AL.

Examiner

William J. Klimowicz

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Shen (US 6,922,378 B2).

As per claim 1, Shen (US 6,922,378 B2) discloses a disk drive comprising a tray (11) for receiving a disk, the tray (11) being supported for movement between a first position within a casing (casing that houses the components of the drive, not expressly depicted) of the disk drive and a second position projecting from the casing, an electric motor (13) for moving the tray (11) between the first and second positions (inner and outer positions of tray), and regulation means for regulating an electric current through the motor (23) for regulating the rotation of the motor (23), characterized in that the regulation means comprises detection means (19) for detecting a back-electromotive signal (including (19)) detects a back-electromotive signal (ΔV_{13a}) - see COL. 2, lines 26-30) produced during rotation of the motor (e.g., produced during the rotation of the motor when the tray (13) is pushed manually into the disk drive) for deriving position information of the tray (11) with respect to the first and second positions. That is, the external force acting on the tray occurs at an outer position, and the signal via the back-emf indicates

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that the position is at least outward of the casing. Hence, at least one position is indeed derived from the counter-emf.

As per claim 3, Shen (US 6,922,378 B2) discloses a method of moving a tray (11) of a disk drive between a first (inward position) and a second position (outward position) under the control of an electric motor (13), characterized in that detection means (including (19)) detects a back-electromotive signal (ΔV_{13a}) - see COL. 2, lines 26-30) produced during rotation of the motor (e.g., produced during the rotation of the motor when the tray (13) is pushed manually into the disk drive) for deriving position information of the tray (13) with respect to the first and second positions. That is, the external force acting on the tray occurs at an outer position, and the signal via the back-emf indicates that the position is at least outward of the casing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (US 6,922,378 B2) in view of Hayashi et al. (JP 09-091820 A).

See the description of Shen (US 6,922,378 B2), *supra*.

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As per claims 2 and 4, Shen (US 6,922,378 B2) does not expressly disclose wherein when the tray moves in a direction from one of the first and second positions to the other one of the first and second positions, and when the position of the tray comes close to one of the first and second positions, the rotation rate of the motor is gradually reduced.

Such structure and method of braking a tray, however, is known.

As an example, Hayashi et al. (JP 09-091820 A) teaches wherein an analogous disk drive with a loading/unloading disk tray (10) is provided, such that when the tray (10) moves in a direction from one of the first and second positions to the other one of the first and second positions, and when the position of the tray (10) comes close to one of the first and second positions, the rotation rate of the motor (23) is gradually reduced.

Hayashi et al. (JP 09-091820 A), discloses such a braking method for a disk drive tray such that:

the application of the impart [sic, impact] by the sudden stop on the tray is prevented. Thereby, the drawing-out quantity of the tray is drastically decreased even if the resistance friction at the time of the discharge varies with the difference in the installation posture of the device.

See abstract of Hayashi et al. (JP 09-091820 A).

Given the express teachings and motivations, as espoused by Hayashi et al. (JP 09-091820 A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the braking of the tray at its stopping positions to the disk drive of Shen (US 6,922,378 B2).

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The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the braking of the tray at its stopping positions to the disk drive of Shen (US 6,922,378 B2), such that:

the application of the impart [sic, impact] by the sudden stop on the tray is prevented. Thereby, the drawing-out quantity of the tray is drastically decreased even if the resistance friction at the time of the discharge varies with the difference in the installation posture of the device.

See abstract of Hayashi et al. (JP 09-091820 A).

Conclusion

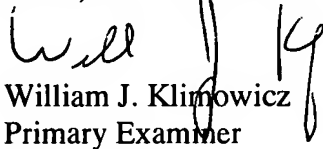
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK